

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 20. (cancelled)

Claim 21. (new) An apparatus for generating a status signal on an output node according to a voltage applied between a power node and a ground node, the apparatus comprising:

- a comparator circuit with a first input node, a second input node, and a decision node coupled to the output node;

- a voltage divider circuit coupled between the ground node and the power node and having an output node coupled to the second input node of the comparator circuit;

- an RC circuit, comprising a first resistive element and a capacitive element coupled in series; the RC circuit coupled between the ground node and the power node; and an output node between the first resistive element and the capacitive element coupled to the first input node of the comparator circuit; and

- a discharge circuit coupled between the power node and the first input node of the comparator circuit.

Claim 22. (new) The apparatus of Claim 21, wherein the discharge circuit comprises a diode circuit coupled between the power node and the first input node of the comparator.

Claim 23. (new) The apparatus of Claim 22, wherein the diode circuit comprises a diode and a second resistive element coupled in series, the second resistive element coupled between the power node and a cathode of the diode, and an anode of the diode coupled to the first input node of the comparator.

Claim 24. (new) The apparatus of Claim 22, wherein the first resistive element comprises at least one resistor; and the capacitive element comprises at least one capacitor.

Claim 25. (new) The apparatus of Claim 22, wherein the apparatus is configured so that its power node and ground node may be coupled to a battery and the apparatus is part of a portable system.

Claim 26. (new) The apparatus of Claim 24, wherein the apparatus is configured so that its power node and ground node may be coupled to a battery and the apparatus is part of a portable system.

Claim 27. (new) The apparatus of Claim 22, wherein the apparatus is configured so that its output node may be coupled to a digital processor.

Claim 28. (new) The apparatus of Claim 25, wherein the apparatus is configured so that its output node may be coupled to a digital processor.

Claim 29. (new) The apparatus of Claim 26, wherein the voltage divider comprises at least two resistors coupled in series and the output node is between these at least two resistors.

Claim 30. (new) The apparatus of Claim 28, wherein the voltage divider comprises at least two resistors coupled in series and the output node is between these at least two resistors.

Claim 31. (new) An apparatus for a digital processor system for generating a status signal on an output node according to a voltage applied between a ground node and a power node, the apparatus comprising:

- a comparator circuit with a first input node, a second input node, and a decision node coupled to the output node;

- a voltage divider circuit coupled between the ground node and the power node and having an output node coupled to the second input node of the comparator circuit; wherein the voltage divider comprises at least two resistors and the voltage divider output node is between the at least two resistors;

- an RC circuit, comprising a first resistive element and a capacitive element coupled in series; the RC circuit coupled between the ground node and the power node and having an RC circuit output node between the first resistive element and the capacitive element; the RC circuit output node coupled to the first input node of the comparator circuit; and

- a discharge circuit coupled between the power node and the first input node of the comparator; the discharge circuit comprising a second resistive element and a diode circuit; the second resistive element coupled between the power node and a cathode of the diode circuit; and an anode of the diode circuit is coupled to the first input node of the comparator.

Claim 32. (new) A method for generating a power-on or reset status signal on an output node according to a supply voltage applied between a ground node and a power node, the method comprising the following steps:

- comparing a reference voltage with a second voltage to generate a decision result provided to the output node;

- generating the power-on or reset signal based on the decision result;

- generating the reference voltage on an output node of a voltage divider which is coupled between the power node and the ground node; the voltage

divider comprising at least two resistive elements in series and the output node of the voltage divider is located between these at least two elements;

generating the second voltage on an output node between a first resistive element and a capacitive element in an RC circuit as the capacitive element is charging or discharging responsive to the voltage between the power node and the ground node; wherein the RC circuit is coupled between the power node and the ground node; and

discharging the capacitor by an alternative circuit when the supply voltage is resetting, where the alternative circuit is coupled between the power node and the output node of the RC circuit.

Claim 33. (new) The method of Claim 32, wherein the alternative circuit comprises a diode circuit coupled between the power node and the output node of the RC circuit.

Claim 34. (new) The method of Claim 33, wherein the diode circuit comprises a diode and a second resistive element coupled in series, the second resistive element coupled between the power node and a cathode of the diode, and an anode of the diode coupled to the output node of the RC circuit.

Claim 35. (new) The method of Claim 33 including a step of selecting the at least two resistive elements of the voltage divider to set the reference voltage to provide the decision result that will enable resetting a digital processor.

Claim 36. (new) The method of Claim 35 including a step of selecting a value of the first resistive element and a value of the capacitive element of the RC circuit to hold the digital processor in a reset state for a particular time interval.

Claim 37. (new) The method of Claim 36, wherein the supply voltage is provided by a battery and the method is used in a portable system.

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Claim 38. (new) The method of Claim 33, wherein the output node couples to a digital processor.